L16: Entry 2 of 3 File: DWPI Aug 9, 1991

DERWENT-ACC-NO: 1992-363632
DERWENT-WEEK: 199244

TITLE: Shape memory alloy with excellent thermal stability - prepd. from zinc@, aluminium@, nickel@, silicon@, zirconium@, titanium@ and copper@

INVENTOR: KIM, Y; LEE, U

PATENT-ASSIGNEE:

ASSIGNEE	CODE
KOREA ADV INST SCI & TECH	KOAD

PRIORITY-DATA: 1988KR-0016224 (December 6, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
KR 9106016 B	August 9, 1991		000	C22C009/04

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
KR 9106016B	December 6, 1988	1988KR-0016224	

INT-CL (IPC): C22C 9/04

ABSTRACTED-PUB-NO: KR 9106016B
BASIC-ABSTRACT:

A shape memory alloy is characterised by its compositions of 23-27 wt.% Zn, 3-5 wt.% Al, 0.5-1.5 wt.% Ni, 0.1-0.3 wt.% Si, 0.1-0.3 wt.% Zr, 0.1-0.3 wt.% Ti, and the remainder of Cu. It is hot-worked, annealed, and quenched to have shape memory properties. It is melted by high frequency induction furnace in a reducing atmosphere; pouring it at 1100-1200 deg.C; homogenising at 750-850 deg.C for 2-5 days; hot rolling to a fixed thickness at 780-800 deg.C; at 750-850 deg.C for 5-50 min. and quenching into water. Its shape memory ability and mechanical properties are not changed by constant heating at 100 deg.C for 150 hr and its thermal stability is excellent at practical temperature 100 deg.C and below.

TITLE-TERMS: SHAPE MEMORY ALLOY THERMAL STABILISED PREPARATION ZINC@ ALUMINIUM@ NICKEL@ SILICON@ ZIRCONIUM@ TITANIUM@ COPPER@

DERWENT-CLASS: M26 M29